

Notice of Allowability

Application No.

10/634,555

Examiner

Kamran Afshar, 571-272-7796

Applicant(s)

GAN ET AL.

Art Unit

2681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/2/2005.
2. ☐ The allowed claim(s) is/are _____.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. William M. Lee Jr., Reg. No: 26,935 on 12/2/2005.

The application has been amended as follows:

In The Claims:

1. (Amended) A location register for maintaining data relating to current location of users of a mobile telephone network for use by the mobile telephone network, the location register being arranged for coupling to a mate location register at a remote location for back up of the data, the location register comprising a controller which is arranged to ~~being divided~~ divide the data into segments and ~~arranged~~ to carry out a partial handover to the mate location register by handing over maintenance of data of one or some of the segments to the mate location register temporarily,

wherein the handing over is triggered by a fault in the segments, and
wherein the controller maintains a map of which users belong to which segment.

2. (amended) The location register of claim 1, the maintaining involving storing and updating the data and responding to network requests to access the data.

3. (Amended) The location register of claim 1 comprising a home location register.

4. (Amended) The location register of claim 1, arranged to carry out the handover on a per user basis.

5. (Amended) The location register of claim 1, the segmentation not being matched at the mate location register.

6. (cancelled) ~~The register of claim 1, having a central wherein the controller for controlling the handovers and maintaining maintains a map of which users belong to which segment.~~

7. (Amended) ~~The register of claim 1~~ A location register for maintaining data relating to current location of users of a mobile telephone network for use by the network, the location register being arranged for coupling to a mate location register at a remote location for back up of the data, the location register comprising a controller which is arranged to divide the data into segments and to carry out a partial handover to the mate location register by handing over maintenance of data of one or some of the segments to the mate location register temporarily, the controller being further arranged to carry out the partial handover for a given one of the users by sending a message to the mate location register, setting the user's status to standby and diverting to the mate location register any requests from the mobile telephone network to access the data for that user,

wherein the handing over is triggered by a fault in the segments, and
wherein the controller maintains a map of which users belong to which segment.

8. (Amended) ~~The register of claim 1~~ A location register for maintaining data relating to current location of users of a mobile telephone network for use by the mobile telephone network, the location register being arranged for coupling to a mate location register at a remote location for back up of the data, the location register comprising a controller which is arranged to divide the data into segments and to carry out a partial handover to the mate location register by handing over maintenance of data of one or some of the segments to the mate location register temporarily, the controller being further arranged to receive a handover request from the mate location register for a given one of the users, to set a user's status to active, and to respond to any requests from the mobile telephone network to access the data for that user,

wherein the handing over is triggered by a fault in the segments, and
wherein the controller maintains a map of which users belong to which segment.

9. (Amended) ~~The register of claim 1~~ A location register for maintaining data relating to current location of users of a mobile telephone network for use by the mobile telephone network, the location register being arranged for coupling to a mate location register at a remote location for back up of the data, the location register comprising a controller which is arranged to divide the data into segments and to carry out a partial handover to the mate location register by handing over maintenance of data of one or some of the segments to the mate location register temporarily, the controller being further arranged to initiate a handback operation for a given one of the users, by requesting a copy of the data from the mate location register, and once received,

Art Unit: 2681

setting the user's status to active, and responding to any requests from the mobile telephone network to access the data for that user,

wherein the handing over is triggered by a fault in the segments, and

wherein the controller maintains a map of which users belong to which segment.

10. (Amended) ~~The register of claim 4~~ A location register for maintaining data relating to current location of users of a mobile telephone network for use by the mobile telephone network, the location register being arranged for coupling to a mate location register at a remote location for back up of the data, the location register comprising a controller which is arranged to divide the data into segments and to carry out a partial handover to the mate location register by handing over maintenance of data of one or some of the segments to the mate location register temporarily, the controller being further arranged to respond to a handback request from the mate location register for a given one of the users, by sending a copy of the data to the mate location register, setting the user's status to standby, and diverting to the mate location register any requests from the mobile telephone network to access the data for that user,
wherein the handing over is triggered by a fault in the segments, and
wherein the controller maintains a map of which users belong to which segment.

11. (Amended) The location register of claim 10 arranged to respond to the handback request only when any transaction has ceased.

12. (Amended) ~~The register of claim 4~~ A location register for maintaining data relating to current location of users of a mobile telephone network for use by the mobile telephone network, the location register being arranged for coupling to a mate location register at a remote location for back up of the data, the location register comprising a controller which is arranged to divide the data into segments and to carry out a partial handover to the mate location register by handing over maintenance of data of one or some of the segments to the mate location register temporarily, the controller being further arranged to cease backing up data with the mate location register after a handover has been initiated,
wherein the handing over is triggered by a fault in the segments, and
wherein the controller maintains a map of which users belong to which segment.

13. (Amended) ~~The register of claim 1,~~ A location register for maintaining data relating to current location of users of a mobile telephone network for use by the mobile telephone network, the location register being arranged for coupling to a mate location register at a remote location for back up of the data, the location register comprising a controller which is arranged to divide

Art Unit: 2681

the data into segments and to carry out a partial handover to the mate location register by handing over maintenance of data of one or some of the segments to the mate location register temporarily, the controller being further arranged to request a full copy of data from the mate location register for users of the handed handing over segment for whom the mate location register is normally in an active state,
wherein the handing over is triggered by a fault in the segments, and
wherein the controller maintains a map of which users belong to which segment.

14. (Amended) ~~The register of claim 1 implemented in the form of software.~~ A computer program product comprising a machine readable medium carrying instructions for operating a controller of a location register in a mobile telephone network, the location register being arranged for coupling to a mate location register at a remote location for back up of the data, the instructions causing the controller to divide the data into segments and to maintain data relating to current location of users of a mobile telephone network for use by the network and to carry out a partial handover to the mate location register by handing over maintenance of data of one or some of the segments to the mate location register temporarily,
wherein the handing over is triggered by a fault in the segments, and wherein the instruction enable the controller to maintain a map of which users belong to which segment.

15. (Amended) A method of maintaining data relating to current location of users of a mobile telephone network for use by the mobile telephone network, ~~the~~ a location register being arranged to be coupled to a mate location register at a remote location for back up of the data, the method having the steps of dividing the location register into segments, and carrying out a partial handover to the mate location register by handing over maintenance of data of one or some of the segments to the mate location register temporarily,
wherein the handing over is triggered by a fault in the segments, and
wherein the controller maintains a map of which users belong to which segment.

16-18. (canceled)

Allowable Subject Matter

1. Claims 1-5, and 7-15 are allowed.

The following is an examiner's statement of reasons for allowance: 1-5, and 7-15.

With respect to claim 1, the prior art of record fails to disclose singly or in combination or render obvious that the location register comprising a controller which is arranged to divide the data into segments and to carry out a partial handover to the mate location register by handing over maintenance of data of one or some of the segments to the mate location register temporarily, wherein the handing over is triggered by a fault in the segments, and wherein the controller maintains a map of which users belong to which segment.

With respect to claim 7, the prior art of record fails to disclose singly or in combination or render obvious the mate location register by handing over maintenance of data of one or some of the segments to the mate location register temporarily, the controller being further arranged to carry out the partial handover for a given one of the users by sending a message to the mate location register, setting the user's status to standby and diverting to the mate location register any requests from the mobile telephone network to access the data for that user, wherein the handing over is triggered by a fault in the segments, and wherein the controller maintains a map of which users belong to which segment.

With respect to claim 8, the prior art of record fails to disclose singly or in combination or render obvious that the mate location register by handing over maintenance of data of one or some of the segments to the mate location register temporarily, the controller being further arranged to receive a handover request from the mate location register for a given one of the users, to set a user's status to active, and to respond to any requests from the mobile telephone network to access the data for that user, wherein the handing over is triggered by a fault in the segments, and wherein the controller maintains a map of which users belong to which segment.

With respect to claim 9, the prior art of record fails to disclose singly or in combination or render obvious that the mate location register by handing over maintenance of data of one or some of the segments to the mate location register temporarily, the controller being further arranged to initiate a handback operation for a given one of the users, by requesting a copy of the data from the mate location register, and once received, setting the user's status to active, and responding to any requests from the mobile telephone network to access the data for that user, wherein the handing over is triggered by a fault in the segments, and wherein the controller maintains a map of which users belong to which segment.

With respect to claim 10, the prior art of record fails to disclose singly or in combination or render obvious that the mate location register by handing over maintenance of data of one or some of the

segments to the mate location register temporarily, the controller being further arranged to respond to a handback request from the mate location register for a given one of the users, by sending a copy of the data to the mate location register, setting the user's status to standby, and diverting to the mate location register any requests from the mobile telephone network to access the data for that user, wherein the handing over is triggered by a fault in the segments, and wherein the controller maintains a map of which users belong to which segment.

With respect to claim 12, the prior art of record fails to disclose singly or in combination or render obvious that the mate location register by handing over maintenance of data of one or some of the segments to the mate location register temporarily, the controller being further arranged to cease backing up data with the mate location register after a handover has been initiated, wherein the handing over is triggered by a fault in the segments, and wherein the controller maintains a map of which users belong to which segment.

With respect to claim 13, the prior art of record fails to disclose singly or in combination or render obvious that the mate location register by handing over maintenance of data of one or some of the segments to the mate location register temporarily, the controller being further arranged to request a full copy of data from the mate location register for users of the handing over segment for whom the mate location register is normally in an active state, wherein the handing over is triggered by a fault in the segments, and wherein the controller maintains a map of which users belong to which segment.

With respect to claim 14, the prior art of record fails to disclose singly or in combination or render obvious that the instructions causing the controller to divide the data into segments and to maintain data relating to current location of users of a mobile telephone network for use by the network and to carry out a partial handover to the mate location register by handing over maintenance of data of one or some of the segments to the mate location register temporarily, wherein the handing over is triggered by a fault in the segments, and wherein the instruction enable the controller to maintain a map of which users belong to which segment.

With respect to claim 15, the prior art of record fails to disclose singly or in combination or render obvious that the method having the steps of dividing the location register into segments, and carrying out a partial handover to the mate location register by handing over maintenance of data of one or some of the segments to the mate location register temporarily, wherein the handing over is triggered by a fault in the segments, and wherein the controller maintains a map of which users belong to which segment.

Art Unit: 2681

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion


2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
 - a) Lamb (U.S. 6,421,537 B1).
 - b) Lamb (U.S. 6,157,83).

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Kamran Afshar whose telephone number is (571) 272-7796. The examiner is reached on Monday-Friday.

If attempts to reach the examiner by the telephone are unsuccessful, the examiner's supervisor, **Feild, Joseph** is reached @ (571) 272-4090. The fax number for the organization where this application or proceeding is assigned is **571-273-8300** for all communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Kamran Afshar


JOSEPH FEILD
SUPERVISORY PATENT EXAMINER